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(54) EXPOSURE CONTROLLING DEVICE

(57) Abstract:

PURPOSE: To improve the control accuracy of exposure quantity by providing the first to third operational means and an adjusting means which adjusts the light quantity of pulse light to be applied next, compensating it from average light quantity value according to the value corresponding to the calculated difference.

CONSTITUTION: The first operational means determines the average light quantity value of each pulse light at the main control system 8, based on data on the pulse number necessary for smoothing the speckle pattern stored beforehand in a memory 6 and the adequate exposure quantity of the resist applied to a wafer W. Besides, the target value corresponding to the accumulated light quantity target to be given to the wafer W when each pulse is applied according to this average light quantity, is calculated by the second operational means, and the difference between this target value and the measured value sent from a light quantity monitor section 26 is calculated by the third

operational means. Based on this difference a command for adjusting the light quantity at a high-speed light-reducing section 13 is outputted for a light quantity control section 14. By this, the exposure quantity control is done for each pulse and the light quantity can be controlled more accurately.

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